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ABSTRACT

The purpose of this report is to provide summary information regarding the evaluation of the Early Prevention of School Failure Project (EPSFP). Initially funded by the state of Illinois, the EPSFP encourages school districts to identify and remediate deficiencies in students which appear to be related to early school failure. Immediately following an introductory section establishing the history of the project and the purpose of the report, the second section of the report describes data gathering and analysis procedures. Summaries indicating units adopting and funding the EPSFP from 1971 to 1981 are provided in the third section. In the fourth and fifth sections, respectively, results for the 1978-1981 and the 1975-1979 projects are reported. Specific attention is given to relationships between student gains and variables such as funding type, amount of specialist/teacher help, and district reactions to EPSFP. Relationships between student gains and selected variables relevant to the 1975-1976 project are discussed in the sixth section, and the long-range effects of the project are reported in the seventh section. The eighth section provides information about the norms for and validity of the Preschool Language Scale. Forms used in evaluating the EPSFP are appended. (RH)

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Evaluation Summary of the

Early Prevention of School Failure Project
A Nationally Validated Program

1971-81

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INTRODUCTION

History of Project

The Early Prevention of School Failure Project (EPSFP) was first funded during the 1971-72 school year and has been continued every year thereafter. The project encourages adopter districts to identify and remediate deficiencies in students that appear to relate to early school failure. Since 1974 approximately one thousand school districts in several states and countries have adopted the project. Regarding the number of students directly affected by the project, more than one-hundred thousand is a conservative estimate. This amount is probably small compared to the number of students who have been indirectly affected by the project.

Initially the State of Illinois funded the project. Following national validation of the project in 1973, funding has consistently included federal components. Beginning in 1976 the State of Ohio included the EPSFP in projects that it funded. Somewhat related, but not emphasized in this report, is the Early Prevention of School Failure Project for Migrant Children that was nationally validated in 1977.

Purpose of Report

The purpose of this report is to provide the interested reader summary information regarding evaluative aspects of the EPSFP. Included are summaries regarding 1980-81 and earlier school year student gains expressed as month gain per month in the program; 1979-80 perceptions of student, teacher, administrator, and parent reactions to the project; adoptions and funding, 1971 through 1981; 1980-81 and earlier school year relationships between student gains and selected relevant variables; a current study regarding the long-range effects of the project; and norms and other information

regarding the Preschool Language Scale (PLS) instrument.

Outline of Remainder of Report

The remainder of this report consists of the following:

(1) General method

(2) Adoption and funding summary, 1971-81

(3) Results for 1979-81 projects

(4) Results for 1975-79 projects

(5) Relationships between student gains and selected variables relevant to 1975-76 project

(6) Study of long-range effects of project

(7) PLS norms and validity

(8) Discussion

(9) Conclusions

GENERAL METHOD

Overview

In this section may be found information concerning the (a) general procedure utilized in collecting the data, (b) instruments utilized assessing the changes in the students, (c) students, (d) method of classifying the students, (e) missing data, (f) transformation of data, (g) independent variables examined, (h) dependent variables examined, and (i) statistical method.

General Procedure Utilized in Collecting Data

Instruments for collecting the data were distributed to the adopter districts. These instruments were responded to by local school personnel and returned to the administrative office in Peotone, Illinois. Many of the dependent variables studied require both pre and posttest scores. In those cases in which either or both the scores were missing the student was not considered in the analysis of the relevant variable.

Instruments

The instruments that were utilized to assess the effect of EPSFP were the Pre-School Language Scale (PLS), Peabody Picture Vocabulary Test (PPVT), and the Developmental Test of Visual-Motor Integration (VMI). The PLS consists of five subtests, each of which may be separately scored. A total score and a month's equivalent score are also provided. The PPVT and VMI each provide a month's equivalent score. The data forms that were provided each district included the (a) Early Prevention of School Failure Adopter School Pre-Post Test Information, (b) Base Data for Evaluation of Adopter Districts, (c) Form D Follow-Up Monitoring Report for Early Prevention of School Failure Adopter Districts, and (d) Early Prevention of School Failure Questionnaire forms or their equivalents. While forms one to three or their equivalents were

usually provided, form four was only provided in conjunction with the evaluation of the 1979-80 project. Copies of forms one to four may be found in the Appendix.

Form number one includes space allotted for pre and post PLS, PPVT, and VMI scores; student disposition; special services data; and pre and posttest dates. Forms two and three include space allotted for scores for variables that may be related to student gains. Form number four includes space allotted for scores relevant to perceptions of student, parent, teacher, and administrator reactions to the project.

Students

The students were the moderate- and high-risk children in the several school districts that adopted the EPSFP for the 1974-81 school years and returned sufficient data to the administrative office. Prior to the 1979-81 school year data for regular students was often provided and analyzed. New adopters and 1976-81 Ohio adopters were required to submit sufficiently complete data. Continuing adopters were offered the opportunity to submit sufficiently complete data. Adopters that were required to submit data did not always do so. Control of the requirement was greatest for Ohio and Illinois adopters.

Method of Classifying Students

The screening instruments utilized provide information concerning each student's level of performance in the auditory, motor, visual, and language modalities. Students who exhibit a discrepancy of two years or more between their chronological age and performance level in two or more modalities determined by the screening information are classified as high-risk children. Students who exhibit a discrepancy of one year or more between their chronological age and performance level in one or more modalities determined by the screening information are classified as moderate-risk children. Students identified as moderate- or high-risk children receive the EPSFP treatment. Student classification is hereafter often referred to as disposition in this report.

Missing Data

In some cases the data for a student was not complete. Consequently, gains for the relevant variables in some cases could not be computed. Missing data invalidated only the data for the relevant variable and did not affect sufficiently complete data for the student on other variables. Because of missing data the sample sizes reported are generally less than the total number of students assessed.

Transformation of Data

Several of the data were transformed to the independent and dependent variables examined. Included are the transformations relevant to the (a) primary dependent variables, (b) amount teacher/specialist help relevant to the 1979-81 data, (c) amount teacher/specialist help relevant to 1975-79 data, and (d) other transformations relevant to the 1975-76 data.

Primary dependent variables. For the 1975-81 data the PLS, PPVT, and VMI months equivalent scores were converted to month gain per month in the program according to the following formula:

$$\text{Month Gain/Month} = \frac{365\ (\text{Post Months Score} - \text{Pre Months Score})}{12\ (\text{Pre-Post Interval in Days})}$$

The five PLS component scores were similarly transformed to gain scores per month in the program.

Amount teacher/specialist help relevant to 1979-81 data. The amount teacher/specialist help relevant to the 1979-81 data was transformed from units to tens.

Amount teacher/specialist help relevant to 1976-79 data. The amount teacher/specialist help relevant to the 1976-79 data was transformed as follows:

Minutes Help Per Week	New Categorical Value
1 - 30	1
31 - 60	2
61 - 90	3
91 - 120	4
over 120	5

The amount teacher/specialist help data relevant to the 1976-77 and 1977-78 analyses were further transformed as follows:

Category	Description
1	Students who received special help from any of the following: LD teacher, Title I teacher, speech teacher, regular classroom teacher, and social worker.
2	Students who did not receive special help from any of the teachers/specialists indicated for category one.

Other transformations relevant to the 1975-76 data. Other transformations relevant only to the 1975-76 data are the following:

(1) Chronological age in months

  (a) Less than 60

  (b) 60-71

  (c) Greater than 71

(2) Amount LD teacher help, amount Title I teacher help, and amount speech teacher and/or social worker help in minutes per week

  (a) Less than 25

  (b) 25-49

  (c) Greater than 49

(3) Number of students in district

  (a) Less than 1100

  (b) Greater than or equal to 1100

(4) Assessed real estate valuation per student in district in hundreds

(a) Less than 158

(b) Greater than or equal to 158

(5) Previous year educational cost per student in district in hundreds

(a) 7 - 8

(b) 10 - 12

(6) Percent minorities in district

(a) Less than 13

(b) Greater than or equal to 13

(7) Percent low income families in district eligible for Title 1 ESEA assistance

(a) Less than 14

(b) Greater than or equal to 14

(8) Monies from grants, special projects, and state facilitator's office to implement EPSFP in district in hundreds

(a) Less than 10

(b) Greater than or equal to 10

Independent Variables Examined

The independent variables examined during the 1975-81 time period included the following:

(1) EPSFP treatment for the following levels of disposition or category

(a) Regular student

(b) Moderate-risk student

(c) High-risk student

(d) No treatment

(2) Amount LD teacher help

(3) Amount Title I teacher help

(4) Amount speech teacher help

(5) Amount regular classroom teacher help

(6) Total amount teacher/specialist help

(7) Amount social worker help

(8) Age

(9) Sex

(10) Number of students in district

(11) Assessed real estate valuation per student in district in ten thousands or hundreds

(12) Educational cost per student in district in hundreds

(13) Percent minorities in district

(14) Percent low income families in district eligible for Title I ESEA assistance

(15) Educational cost per student in district budgeted for EPSFP above regular educational cost

(16) Monies from grants, special projects, and state facilitator's office to implement EPSFP in district in hundreds

(17) Incidence of parent orientations in district

(18) Incidence of screening-results feedback to parents in district

(19) Incidence of educational planning workshop in district

(20) Incidence of LD class provision in district

(21) Incidence of use of skill sheet for individual planning in district

(22) Incidence of use of Curriculum Guides in district

(23) Incidence of use of learning centers in district

(24) Incidence of individual and small group activities in district

(25) Incidence of inservice programs for teachers in district

(26) Incidence of use of parent volunteers in district

(27) Number of parent volunteers in district

(28) Incidence of work shops for parents for making teaching tools in district

(29) Incidence of first-grade teacher involvement in program in district

(30) Incidence of district considering expanding program

(31) Incidence of district presentation of EPSFP-related programs

The primary independent variable examined was treatment.

Dependent Variables Examined

The dependent variables examined that are all expressed as gain per month in the program are the following:

(1) PLS I score
(2) PLS II score
(3) PLS III score
(4) PLS IV score
(5) PLS V score
(6) PLS total score
(7) PLS months score
(8) PPVT months score
(9) VMI months score

The primary dependent variables above examined were variables 7, 8 and 9.

Additional dependent variables examined are the following:

(1) District mean PLS month gain/month for each disposition level

(2) District mean PPVT month gain/month for each disposition level

(3) District mean VMI month gain/month for each disposition level

(4) District mean PLS month gain/month across both levels of disposition

(5) District mean PPVT month gain/month across both levels of disposition

(6) District mean VMI month gain/month across both levels of disposition

(7) District mean PLS, PPVT, and VMI month gain/month for each level disposition

(8) District mean PLS, PPVT, and VMI month gain/month across both levels of disposition

(9) Degree to which district was satisfied with training

(10) Degree to which district was satisfied with parental involvement

(11) Degree to which district was satisfied with EPSFP materials

(12) Degree to which district was satisfied with specialists

(13) Overall parent reaction to EPSFP in district

(14) Overall student reaction to EPSFP in district

(15) Overall administrator reaction to EPSFP in district

(16) Overall teacher reaction to EPSFP in district

(17) Overall district reaction to EPSFP

(18) Degree to which student attitude toward learning was modified in district

(19) Degree to which student performance was modified in district

(20) Degree to which project modified motivation to teach effectively in district

Statistical Method

Several statistical methods have been utilized in analyzing EPSFP data since 1975. The primary methods have been the following:

(1) For each primary dependent variable mean gains per month in the program and standard deviations (for those who may wish to perform tests of significance) were computed for each combination of school district and disposition and for each disposition across all districts for each funding source for each school year since the 1976-77 school year.

(2) For each primary dependent variable mean gains per month in the program were computed for matched adopter and control districts for 1975-76 data. t tests were utilized to test the significance of the difference between selected pairs of means.

(3) For different funding agencies for most school years prior to 1979-80 one-way analyses of variance were utilized to test the significance of the differences between group means for each primary dependent variable. The independent variables were the various amount teacher/specialist help variables.

(4) For some funding agencies for the 1979-81 school years Pearson product-moment and Spearman rank-order correlation coefficients were computed for each pair of each primary dependent variable and each selected amount teacher/specialist help variable. Correlations were also computed for each pair of each primary dependent variable and each selected variable that was thought to be related to student gain.

(5) For different funding agencies for some school years t-tests and one-way analyses of variance were utilized to test the significance of the differences between selected mean gains. Independent variables

were variables other than amount teacher/specialist help that were suspected to affect or be related to the perception of the success of the program and the several performance gain variables.

(6) For the 1979-80 school year means and other descriptive statistics were computed for the perception of success of program variables.

ADOPTION AND FUNDING SUMMARY

1971-81

Overview

In this section may be found information concerning adoption and funding summaries. Only information concerning federal and state of Illinois funding is included.

In Table I may be found summary information concerning number of new adopters of EPSFP for the school years 1974-81. Data concerning number of adopters prior to the 1974-75 school year is irrelevant since the initial years of funding focussed on the development of the project. No doubt more than 100,000 students have been directly affected by the project.

TABLE I

Number of New Adopters of EPSFP for School Years 1974-81

School Year	Number New Adopters
1974-75	18
1975-76	52
1976-77	44
1977-78	161
1978-79	251
1979-80	326
1980-81	160

Funding Summary

In Table II may be found summary information concerning source of funding for the school years 1971-81.

TABLE II

Source of Funding for

School Years 1971-81

School Year	Source
1971-72	State of Illinois, Title III, ESEA
1972-73	State of Illinois, Title III, ESEA
1973-74	State of Illinois, Title III, ESEA
1974-75	State of Illinois, Title III, ESEA United States, Project 306, Title III
1975-76	United States, Project 306, Title III
1976-77	State of Illinois, Title IV, Part C Diffusion Grant
1977-78	State of Illinois, Title IV, Part C Diffusion Grant United States, National Diffusion Network
1978-79	State of Illinois, Title IV, Part C Diffusion Grant United States, National Diffusion Network
1979-80	State of Illinois, Title IV, Part C Diffusion Grant United States, National Diffusion Network
1980-81	State of Illinois, Title IV, Part C Diffusion Grant United States, National Diffusion Network

RESULTS FOR 1979-81 PROJECTS

Overview

In this section may be found results concerning (a) student gains for each combination of disposition and funding type, (b) relationship between amount specialist/teacher help and student gain for selected funding types, (c) selected district reactions to EPSFP for each funding type relevant to the 1979-80 project, and (d) relationship between student gains and other selected variables including district reactions to EPSFP.

Student Gains for Each Combination of Disposition and Funding Type

In Tables III through VIII may be found statistics regarding student gains across all districts for NDN, Illinois and Ohio funding. Mean PLS, PPVT, and VMI month gains per month in the program and standard deviations (for those who may wish to perform tests of significance) are provided for each student disposition category. All the 36 student mean gains are greater than one. Fifteen of the 36 are greater than two.

Regarding individual districts*, 516 of the 552 district mean month gains are greater than one (311 of which are 2.0 or higher) for NDN adopters. For Illinois adopters, 232 of the 258 district mean month gains are greater than one (140 of which are 2.0 of higher). For Ohio adopters, 70 of the 72 district mean month gains are 1.0 or higher (38 of which are 2.0 or higher). Thus, 818 of the 882 district mean month gains (93%) are 1.0 or higher (489 (55%) of which are 2.0 or higher).

* Details concerning individual districts may be found in the following evaluation reports: Evaluation of the Early Prevention of School Failure Nationally Validated Project for 1979-80--NDN Adopters; Evaluation of the Early Prevention of School Failure Nationally Validated Project for 1979-80--Illinois Adopters; Diagnosing the Learning Needs of Young Children Project Evaluation Report for 1979-80; Evaluation of the Early Prevention of School Failure Nationally Validated Project for 1980-81--NDN Adopters; Evaluation of the Early Prevention of School Failure Nationally Validated Project for 1980-81--Illinois Adopters; and Diagnosing the Learning Needs of Young Children Project Evaluation Report for 1980-81.

TABLE III
1979-80 NDN Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St.Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	1055	3.04	2.02	1033	1.81	1.69	1074	1.68	1.45
High Risk	825	3.47	2.02	834	1.95	1.74	865	1.66	1.29

TABLE IV
1979-80 Illinois Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St.Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	503	2.91	1.90	503	2.08	1.74	501	1.47	1.30
High Risk	283	3.52	2.07	278	2.38	1.93	281	1.55	1.20

TABLE V
1979-80 Ohio Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St.Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	390	3.75	1.91	203	1.51	1.25	390	1.64	1.36
High Risk	307	3.79	1.96	150	1.99	1.18	305	1.76	1.34

TABLE VI

1980-81 NDN Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St. Dev.	PPVT Months N	Mean Gain	St. Dev.	VMI Months N	Mean Gain	St. Dev.
Moderate Risk	864	2.80	1.88	801	1.85	1.81	853	1.61	1.50
High Risk	660	3.49	2.07	626	2.17	1.90	641	1.72	1.43

TABLE VII

1980-81 Illinois Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St. Dev.	PPVT Months N	Mean Gain	St. Dev.	VMI Months N	Mean Gain	St. Dev.
Moderate Risk	363	2.68	1.72	368	1.66	1.54	367	1.50	1.68
High Risk	503	3.06	1.91	506	1.99	1.83	509	1.64	1.41

TABLE VIII

1980-81 Ohio Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St. Dev.	PPVT Months N	Mean Gain	St. Dev.	VMI Months N	Mean Gain	St. Dev.
Moderate Risk	220	3.14	2.14	139	1.71	1.67	219	1.53	1.35
High Risk	281	3.55	1.90	138	1.99	1.75	279	1.52	1.12

Relationship Between Amount Specialist/Teacher Help and Student Gain for Selected Funding Types

Spearman rank-order correlation coefficients were computed for each pair of amount specialist/teacher help (four types) and primary dependent variable for each of Illinois and Ohio funded districts relevant to the 1979-80 analyses, and for each of NDN, Illinois, and Ohio funded districts relevant to the 1980-81 analyses. Pearson product-moment correlation coefficients were computed and appropriate analyses of variance were performed for the purpose of supporting the interpretation of the rank-order correlation coefficients. These correlation coefficients were computed and analyses of variance were performed for each year analyzed for all districts combined for each of the funding sources and for each district separately.

The results for 1979-80 Ohio funded districts support a hypothesis of positive relationships between selected amount specialist/teacher help and selected student gains*. Five of 12 rank-order correlation coefficients obtained are significant at or beyond the .05 level. Four of the significant correlations are positive and range from .09 to .29. Two of these correlations included amount speech teacher help as one of the paired variables and two included amount regular classroom teacher help. The Pearson product-moment correlation coefficients and the results of the analyses of variance support the interpretation of the rank-order correlation coefficients. Further, the results for the separate districts are consistent with the results across all districts. Eight of the 42 rank-order correlation coefficients are significant at or beyond the .05 level, and six of the eight are positive.

The results for 1979-80 Illinois funded districts less strongly support a hypothesis of positive relationships between selected amount specialist/teacher

* Further details of this analysis may be found in a publication entitled Diagnosing the Learning Needs of Young Children Project Evaluation Report for 1979-80.

help and selected student gains*. All the rank-order correlation coefficients obtained are of low absolute value and nonsignificant. The Pearson product-moment correlation coefficients and the results of the analyses of variance support the interpretation of the rank-order correlation coefficients. These results reflect little or no relationship between amount specialist/teacher help and student performance gain.

However, these results in possibly large part are due to noncontrolled factors such as between-district variability. The results for separate districts provide a somewhat different interpretation. Twenty-six of 130 rank-order correlation coefficients are significant at or beyond the .05 level, and 16 of the 26 are positive. The absolute value of some of the significant correlations is high. Five of the six significant district rank-order correlations for amount LD teacher help are positive. All four of the significant correlations for amount Title I teacher help are positive. Four of the six significant correlations for amount speech teacher help are positive. However, only three of the 10 significant correlations for amount regular classroom teacher help are positive.

The results for 1980-81 NDN funded districts support a hypothesis of positive relationships between selected amount specialist/teacher help and selected student gains**. Six of 15 rank-order correlation coefficients obtained are significant at or beyond the .05 level. Five of the significant correlations are positive and range from .05 to .09. Two of these correlations included amount LD teacher help as one of the paired variables, two included amount speech teacher help, and one included amount regular classroom teacher help.

* Further details of this analysis may be found in a publication entitled Evaluation of the Early Prevention of School Failure Nationally Validated Project for 1979-80--Illinois Adopters.

** Further details of this analysis may be found in a publication entitled Early Prevention of School Failure Nationally Validated Project--NDN Adopters Evaluation Report for 1980-81.

The Pearson product-moment correlation coefficients and the results of the analyses of variance support the interpretation of the rank-order correlation coefficients. Further, the results for the separate districts are consistent with the results across all districts. Forty-four of the 282 rank-order correlation coefficients are significant at or beyond the .05 level, and 31 of the 44 are positive.

The results for the 1980-81 Illinois and Ohio funded districts do not support a hypothesis of positive relationships between selected amount specialist/teacher help and selected student gains.

Since no follow-up analysis has been attempted, caution in the interpretation of these results is suggested.

Selected District Reactions to EPSFP for Each Funding Type

In Tables IX, X, and XI may be found means for selected 1979-80 district reactions to EPSFP for NDN, Illinois and Ohio funding, respectively. The statistics reflect positive reaction to selected aspects of the EPSFP.

TABLE IX

Means* for Selected Reactions to EPSFP -- NDN Adopters

Item Number	Content	N	Mean
1	Satisfaction with Training	11	5.2
2	Satisfaction with Parent Involvement	10	3.8
3	Satisfaction with EPSFP Materials	11	5.5
4	Satisfaction with Specialists	11	5.3
5	Overall Parent Reaction to EPSFP	11	5.9
6	Overall Student Reaction to EPSFP	11	6.4
7	Overall Administrator Reaction to EPSFP	11	6.6
8	Overall Teacher Reaction to EPSFP	11	6.2
9	Overall District Reaction to EPSFP	11	6.4
10	Change in Student Attitude Toward Learning	11	4.9
11	Change in Student Performance	11	5.3
12	Change in Motivation to Teach Effectively	11	5.2

* Refer to the footnote relevant to Table XI for additional information.

TABLE X

Means* for Seclected Reactions to EPSFP -- Illinois Adopters

Item Number	Content	N	Mean
1	Satisfaction with Training	15	5.2
2	Satisfaction with Parent Involvement	14	5.1
3	Satisfaction with EPSFP Materials	15	6.3
4	Satisfaction with Specialists	12	6.0
5	Overall Parent Reaction to EPSFP	14	5.9
6	Overall Student Reaction to EPSFP	15	6.1
7	Overall Administrator Reaction to EPSFP	15	6.3
8	Overall Teacher Reaction to EPSFP	15	5.9
9	Overall District Reaction to EPSFP	15	6.5
10	Change in Student Attitude Toward Learning	15	5.3
11	Change in Student Performance	15	5.4
12	Change in Motivation to Teach Effectively	13	5.8

* Refer to the footnote relevant to Table XI for additional information.

TABLE XI

Means* for Selected Reactions to EPSFP -- Ohio Adopters

Item Number	Content	N	Mean
1	Satisfaction with Training	5	5.2
2	Satisfaction with Parent Involvement	5	4.0
3	Satisfaction with EPSFP Materials	5	5.4
4	Satisfaction with Specialists	5	5.2
5	Overall Parent Reaction to EPSFP	5	6.2
6	Overall Student Reaction to EPSFP	4	6.8
7	Overall Administrator Reaction to EPSFP	5	6.0
8	Overall Teacher Reaction to EPSFP	5	5.6
9	Overall District Reaction to EPSFP	5	6.4
10	Change in Student Attitude Toward Learning	4	5.8
11	Change in Student Performance	5	5.2
12	Change in Motivation to Teach Effectively	3	5.0

* For items one to four, 7 = totally satisfied and 1 = totally unsatisfied. For items five to nine, 7 = totally positive and 1 = totally negative. For items 10 to 12, 7 = highly positive difference (current higher than old), 5 = moderately positive difference, 3 = little or no difference, and 1 = moderately negative difference (current lower than old).

Relationships Between Student Gains and Other Selected Variables Including District Reactions to EPSFP

In this section may be found results concerning relationships between student gains and other selected variables including district reactions to EPSFP. The subsections include correlational analyses and t-test analyses.

Correlational analyses. In Table XII may be found Pearson product-moment and Spearman rank-order correlation coefficients for selected pairs of student gain and other variables. Especially noteworthy are the often positive and significant correlations for student gain and each of percent minorities in district, district satisfaction with training, overall teacher reaction, and overall district reaction. Since no follow-up analysis has been attempted, caution in the interpretation of these results is suggested.

t-test analyses. In Table XIII may be found means and t values for selected combinations of independent and student gain variables. The results support a hypothesis of greater gains being associated with use of learning centers, use of parent volunteers, and presentation of EPSFP-related programs. Several similar and often significant findings were observed for screening-results feedback to parents and skill sheet utilization, but the sample size for group two is always one.

TABLE XII

Pearson Product-Moment and Spearman Rank-Order Correlation

Coefficients* for Selected Pairs of Student Gain and Other Variables

Student Gain Variable	Percent Minorities in District	District Satisfaction with Training	Overall Teacher Reaction	Overall District Reaction
District Mean PLS Month Gain for Moderate-Risk Students				r=.47(23,.01)
District Mean PPVT Month Gain for Moderate-Risk Students		r=.47(19,.02)	r=.39(19,.05)	r=.45(19,.03)
District Mean VMI Month Gain for Moderate-Risk Students	r=.33(40,.02)** p=.41(40,.00)**			r=.42(23,.02)
District Mean PLS Month Gain for High-Risk Students	p=.28(36,.05)		r=.56(23,.00) p=.57(23,.00)	r=.36(23,.04) p=.35(23,.05)
District Mean PPVT Month Gain for High-Risk Students	p=.36(33,.02)			
District Mean PLS Month Gain across Both Disposition Levels	r=.30(30,.05) p=.36(30,.03)		r=.49(19,.02) p=.45(19,.03)	
District Mean VMI Month Gain across Both Disposition Levels	p=.31(31,.05)	p=.40(19,.05)		p=.42(19,.04)
District Mean PLS, PPVT, and VMI Month Gain for Moderate-Risk Students		r=.44(19,.03) p=.44(19,.03)		r=.59(19,.00)
District Mean PLS, PPVT, and VMI Month Gain across Both Disposition Levels	p=.41(25,.02)		r=.49(15,.03)	

* Only correlation coefficients that are significant at or beyond the .05 level are included in this table.

** r refers to Pearson product-moment correlation coefficient and
p refers to Spearman rank-order correlation coefficient. The respective values within the parentheses are sample size and probability value associated with a one-tailed test.

TABLE XIII

Means and t Values for Selected Combinations* of Independent and Student Gain Variables

Independent Variable	Student Gain Variable (Dependent Variable)	df	t Value	p Value***	Means Category** 1	2
Use of Learning Center	District Mean PLS Month Gain for Moderate-Risk Students	35	2.74	.01	3.11(34)****	1.83(3)
	District Mean PPVT Month Gain for Moderate-Risk Students	30	-2.05	.05	1.76(29)	2.47(3)
	District Mean PLS Month Gain across Both Disposition Levels	26	2.32	.03	3.16(26)	2.11(2)
Use of Parent Volunteers	District Mean PLS Month Gain for Moderate-Risk Students	35	1.67	.10	3.15(27)	2.64(10)
	District Mean PPVT Month Gain for High-Risk Students	27	1.76	.09	2.23(20)	1.89(9)
	District Mean PPVT Month Gain across Both Disposition Levels	22	2.45	.02	2.07(17)	1.63(7)
Presentation of EPSFP-Related Programs	District Mean PPVT Month Gain for Moderate-Risk Students	29	2.20	.04	1.95(24)	1.41(7)
	District Mean VMI Month Gain for High-Risk Students	30	3.01	.01	1.83(26)	1.12(6)
	District Mean PLS, PPVT, and VMI Month Gain for Moderate-Risk Students	29	1.83	.08	2.28(24)	1.96(7)
	District Mean PLS,PPVT, and VMI Month Gain for High-Risk Students	26	1.84	.08	2.47(23)	2.13(5)
	District Mean PLS,PPVT, and VMI Month Gain across Both Disposition Levels	21	1.90	.07	2.36(19)	1.99(4)

* Means and t values are included for all combinations of independent and student gain variables for those independent variables for which at least three t values are significant at or beyond the .10 level utilizing a two-tailed test, and for which the sample size for the smaller group is greater than one.

** The response associated with category one is yes and the response associated with category two is no.

*** Any t value whose associated p value for a two-tailed test is .05 or less is significant at or beyond the level selected for this report.

**** The value within the parentheses is sample size.

RESULTS FOR 1975-79 PROJECTS

Overview

In this section may be found results concerning (1) student gains for the 1975-76 project, (2) student gains for combinations of disposition and funding type for the 1976-79 projects, and (3) relationship between amount teacher/specialist help and student gain for selected funding types for the 1975-79 projects.

Student Gains for 1975-76 Project*

Eighty-six of the 98 district mean month gains are 1.0 or higher (22 of which are greater than two). These results were based on 739 moderate-risk and 322 high-risk students.

Student Gains for Combinations of Disposition and Funding Type, 1976-79 Projects

In Tables XIV through XXI may be found statistics regarding student gains across all districts for selected funding types for the years 1976-79. Mean PLS, PPVT, and VMI month gains per month in the program and standard deviations (for those who may wish to perform tests of significance) are provided for each student disposition category. Forty-four of the 46 student mean gains are greater than one. Fifteen of the 44 are greater than two. Regarding individual districts*, 621 of the 690 district mean month gains (90%) are 1.0 or higher (335 (49%) of which are 2.0 or higher).

*Details concerning individual districts may be found in the several evaluation reports produced during the years 1975-79.

TABLE XIV
1976-77 Non-Ohio and Non-Illinois Districts
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St.Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	279	1.43	1.23	328	1.62	1.80	337	1.68	1.38
High Risk	90	1.65	1.45	190	2.26	1.72	190	1.79	1.50

TABLE XV
1976-77 Chicago Districts
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St. Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	72	0.95	0.74	-	-	-	166	1.66	1.44
High Risk	60	1.19	0.78	-	-	-	333	1.78	1.52

TABLE XVI
1976-77 Non-Chicago Illinois Districts
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St.Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	342	0.90	0.80	448	1.88	1.80	421	1.62	1.76
High Risk	69	1.13	0.96	94	2.07	1.87	90	1.77	1.19

TABLE XVII
1976-77 Ohio Districts
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St.Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	280	1.03	0.75	9	1.53	1.79	280	1.68	1.24
High Risk	513	1.29	0.81	55	2.07	2.54	577	1.65	1.36

TABLE XVIII

1977-78 NDN and Illinois Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St. Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	902	3.21	1.88	847	1.75	1.86	873	1.66	1.47
High Risk	446	3.87	2.49	444	1.99	2.80	444	1.63	1.31

TABLE XIX

1977-78 Ohio Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St.Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	286	3.08	2.00	17	1.69	1.49	268	1.61	1.23
High Risk	293	3.34	2.05	16	2.02	1.27	240	1.58	1.18

TABLE XX
1978-79 NDN and Illinois Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St.Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	1150	3.21	2.20	1085	1.82	1.97	1051	1.58	1.36
High Risk	963	3.69	2.30	1080	2.12	2.02	1030	1.59	1.43

TABLE XXI
1978-79 Ohio Funding
PLS, PPVT, and VMI Mean Month Gains Across All Districts

Student Disposition	PLS Months N	Mean Gain	St.Dev.	PPVT Months N	Mean Gain	St.Dev.	VMI Months N	Mean Gain	St.Dev.
Moderate Risk	459	2.62	1.91	162	2.24	1.76	453	1.62	1.20
High Risk	416	3.33	2.14	90	2.08	1.37	408	1.64	1.21

Relationships Between Amount Teacher/Specialist Help and Student Gain for Selected Funding Types for 1975-79 Projects

Analyses relevant to the relationship between amount teacher/specialist help and student gain performed for 1975-79 yielded unclear results*. While positive relationships have been demonstrated more often than negative relationships, the high proportion of negative and nonsignificant relationships weaken the positive findings. Especially positive are the findings for the PLS gain score, especially relevant to its relationship with amount regular classroom teacher help. For example, in Table XXII may be found results that pertain to the generally positive relationship between amount regular classroom teacher help and PLS month gain. In all cases with the exception of one, the F value is significant. In most cases the groups subjected to higher amounts of regular classroom instruction gained more than the groups subjected to lower amounts of instruction.

However, in Table XXIII may be found results that pertain to the generally unclear relationships between amount Title I teacher help and PPVT month gain. While four of the five F values are significant, the means reflect unclear results.

One of the weaknesses cited in the yearly evaluation reports pertains to aspects of between-district variability**. Analysis of the 1979-81 data included components to reduce the probability of negative analytic effects of between-district variability***,****. Since no additional follow-up analysis has been attempted, caution in the interpretation of these results is suggested.

* Details concerning these analyses may be found in several evaluation reports produced during the years 1975-79.

** Details concerning this weakness may be found in the evaluation reports for the years 1975-78.

*** Details concerning the method may be found in the references cited in the Results for 1979-81 Projects section of this report.

**** Results for the 1979-81 data may be found in the Results for 1979-81 Projects section of this report.

TABLE XXII

PLS Mean Gains and F Values for Selected Combinations of Year and Funding Type for Amount Classroom Teacher Help Categories

Year	Funding Type	df	F Value	p Value	PLS Mean Gains Amount Help Category* 1	2	3	4	5
1976-77	Ohio	4,663	3.13	.01	1.18	1.26	1.06	1.13	1.35
	Illinois (No Chicago)	4,387	6.71	.00	0.50	0.74	1.03	1.07	1.18
	Non Ohio and Non Illinois	4,355	15.87	.00	0.69	0.96	0.99	1.31	2.45
	Illinois (Only Chicago)	2,105	17.10	.00	1.85	1.23	0.87		
1977-78	Non Ohio	4,1202	1.45	.21					
	Ohio	4,566	4.84	.00	2.67	3.10	2.86	3.14	3.80
1978-79	Non Ohio	4,2016	4.04	.00	3.54	3.51	3.72	3.09	3.38
	Ohio	4,858	19.98	.00	2.62	2.66	4.48	3.02	2.66

* Information concerning the ranges for each category in instruction time per week may be found in the Transformation of Data subsection of the General Method section of this report. Categories one and five represent groups subjected to the respective least and greatest amount of help.

TABLE XXIII

PPVT Mean Gains and F Values for Selected Combinations of Year and Funding Type for Amount Title I Teacher Help Categories

Year	Funding Type	df	F Value	p Value	PPVT Mean Gains Amount Help Category* 1	2	3	4	5
1975-76	All (Moderate-Risk Students)	2,727	6.78	--**	1.71	2.41	1.83	----	----
	All (High-Risk Students)	2,310	3.26	--**	1.97	2.66	0.86	----	----
1976-77	Illinois (No Chicago)	2,33	9.47	.00	----	1.60	4.44	----	0.04
1977-78	Non Ohio	4,152	1.50	.20					
1978-79	Non Ohio	4,98	4.40	.00	3.24	2.29	1.97	5.60	1.51

* Information concerning the ranges for each category in instruction time per week may be found in the Transformation of Data subsection of the General Method section of this report. Categories one and five represent groups subjected to the respective least and greatest amount of help.

** Not reported although significant at or beyond the .05 level.

RELATIONSHIPS BETWEEN STUDENT GAINS AND SELECTED VARIABLES RELEVANT TO 1975-76 PROJECT

Overview

In this section may be found results concerning the relationships between (a) amount teacher/specialist help and student gain, and (b) student gain and other selected variables.

Relationships Between Amount Teacher/Specialist Help and Student Gain

Information concerning the relationships between amount teacher/specialist help and student gain may be found in Relationships between Amount Teacher/Specialist Help and Student Gain for Selected Funding Types for 1975-79 Projects subsection of the Results for 1975-79 Projects section of this report.

Relationships Between Gain and Other Selected Variables

Analyses relevant to the relationships between student gain and other selected variables generally yielded nonsignificant results*. Results for sex, assessed real estate valuation per student in district, educational cost per student in district, percent minorities in district, monies from grants and other sources, and incidence of inservice programs for teachers in district are nonsignificant for all combinations of primary dependent variable and disposition. Results for number of students in district and percent low income families in district are generally, but not always, nonsignificant. Slight evidence is available to support the following hypotheses:

(1) Positive relationship between number of students in district and student gain.

(2) Positive relationship between percent low income families in district and student gain.

While indepth analysis of these variables has yet to be initiated, no doubt several of the substantial relationships with gain may be attributed to substantial relationship with one another.

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* Details concerning these analyses may be found in the Early Prevention of School Failure Nationally Validated Project Evaluation Report for 1975-76.

Results for chronological age and disposition are more clear. In Table XXIV may be found student mean gains and F values for selected combinations of disposition and primary dependent variable for chronological age categories. Four of the six F values are statistically significant and in each of the four cases a negative relationship between chronological age and gain may be observed.

In Table XXV may be found mean district mean gains and F values for primary dependent variables for disposition categories. Two of the three F values are statistically significant and in each of the two cases the lowest gain observed is for the regular category and the highest mean observed is for the high-risk category.

TABLE XXIV

Student Mean Gains and F Values for Selected Combinations of Disposition and Primary Dependent Variable for Chronological Age Categories

Disposition	Primary Dependent Variable	df	F Value	Mean Month Gain Age Category* 1	2	3
Moderate Risk	PLS	2,736	7.37**	1.13	1.16	0.83
High Risk		2,319	6.57**	1.84	1.43	1.07
Moderate Risk	PPVT	2,727	2.02			
High Risk		2,310	5.33**	2.29	1.98	1.39
Moderate Risk	VMI	2,695	1.48			
High Risk		2,302	4.46**	2.29	1.74	1.73

* Information concerning the ranges for each category in months may be found in the Transformation of Data subsection of the General Method section of this report. Categories one and three represent groups of respective lowest and highest age.

** Significant at or beyond the .05 level.

TABLE XXV

Mean District Mean Gains and F Values for Primary Dependent Variables for Disposition Categories

Primary Dependent Variable	df	F Value	Mean District Mean Month Gain Disposition Category Regular	Moderate Risk	High Risk
PLS	2,22	30.94*	0.90	1.17	1.37
PPVT	2,22	0.36			
VMI	2,22	4.42*	1.48	1.60	1.85

* Significant at or beyond the .05 level.

STUDY OF LONG-RANGE EFFECTS OF PROJECT

Overview

In this section may be found (a) background information, (b) method, (c) second year results, (d) discussion, and (e) conclusion relevant to the study of the long-range effects of this project.

Background Information

The EPSFP-related yearly evaluation reports produced since the 1975-76 school year have consistently suggested that the project is successful in terms of stated goals. However, one recommendation consistently included in the reports pertains to a need to study the long-range effects of the project. This line of thought motivated the initiation of a three-year study whose first and second year results are included in this section.

Method*

Overall study design. Appropriately selected experimental (students who received the EPSFP treatment) and matched control (students who did not receive the EPSFP treatment) subjects were tested utilizing the PPVT and VMI instruments during September, 1979. Experimental and control treatments were subsequently provided. During April, 1980 these experimental and matched control subjects were again provided the PPVT and VMI instruments. During April, 1981 the subjects were provided the PPVT and VMI instruments, and an appropriate standardized reading test. During April, 1982 the subjects will again be provided an appropriate standardized reading test. The design emphasizes appropriate control and the identification of differences between experimental and control subjects at selected times after termination of EPSFP treatment.

General procedure utilized in collecting year one data. Coordinators appropriately selected experimental and control classrooms in their school district, and were responsible for appropriately administering the PPVT and

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* Details concerning the overall study design and general procedure utilized in collecting year one data and year two data may be found in a publication entitled Procedure Relevant to Study of the Long-Range Effect of the Early Prevention of School Failure Program 1979-82.

VMI instruments during a specific period of time in September, 1979. Relevant data was sent to the administrative office where EPSFP staff appropriately sampled and matched a maximum of five pairs of experimental and control subjects for each school district. Information concerning the matched pairs was disseminated to the participating school districts in sufficient advance of selected posttest dates. The matched subjects were provided posttreatment PPVT and VMI tests in April, 1980. Shortly after the posttestings the coordinators returned the relevant data to the administrative office for data analysis.

General procedure utilized in collecting year two data. The matched experimental and control subjects were appropriately provided the PPVT, VMI, and Gates-MacGinitie Reading Tests near the end of year two in April, 1981. Shortly after the testings the coordinators returned the relevant data to the administrative office for analysis.

Subjects. The subjects were the matched experimental and control students in the five school districts that elected to participate in the study. All subjects were initially kindergarten or first grade students who were classified as either moderate- or high-risk students*. While five matched pairs for each district were desired,in some cases less than five pairs were utilized.

Independent Variables Examined. The independent variables examined are test and treatment. Test consists of first year pre and post and second year levels, and treatment consists of experimental and control levels.

Dependent Variables Examined. The dependent variables examined are the PPVT and VMI month scores, and the Gates-MacGinitie raw, percentile rank, and grade-equivalent scores.

* Details concerning the classification of the students may be found in the appropriate subsection of the General Method section of this report.

Statistical method. For each combination of test and treatment, means and other descriptive statistics were computed for each dependent variable examined. For the PPVT and VMI variables, two-way (test X treatment) analyses of variance were performed. For each analysis, the primary F ratio inspected was the interaction F ratio that is relevant to the difference between the differences among the two treatments. t tests were utilized for reading scores.

Second Year Results

PPVT and VMI instruments. In Table XXVI may be found means for each combination of test, treatment, and PPVT and VMI variable. In Table XXVII may be found analysis of variance summaries for the two dependent variables. The analysis of variance of the PPVT month scores resulted in significant F ratios for test and treatment. The more important F ratio for interaction is nonsignificant. However, the year two post - year one pre gain for the experimental group (29.7) is considerably greater than the gain for the control group (26.4).

The analysis of variance of the VMI month scores resulted in a significant F ratio for test. The more important F ratio for interaction is nonsignificant. However, the year two post - year one pre gain for the experimental group (30.2) is considerably greater than the gain for the control group (24.9).

Gates-MacGinitie instrument. In Table XXVIII may be found Gates-MacGinitie reading score means and relevant t values. These include results for raw score, percentile rank, and grade equivalent (months) scores. All the experimental means are significantly (one-tailed tests) greater than the corresponding control means and all the differences appear to be of practical significance.

TABLE XXVI

Means for Combinations of Test, Treatment, and Dependent Variable

Month Means						
PPVT Test				VMI Test		
Year One Pre	Year One Post	Year Two Post	Treatment	Year One Pre	Year One Post	Year Two Post
67.1	85.0	96.8	Experimental	62.2	83.6	92.4
60.0	72.5	86.4	Control	61.8	75.2	86.7

TABLE XXVII

Analysis of Variance Summaries for
PPVT and VMI Month Scores

Part I: PPVT Month Scores

Source	df	ms	F Value	p Value*
Test (Te)	2	6694.1	54.2	.00
Error (Te)	32	123.6		
Treatment (Tr)	1	2550.0	15.5	.00
Error (Tr)	16	164.6		
Test X Treatment (Te X Tr)	2	64.7	0.6	.55
Error (Te X Tr)	32	105.2		

Part II: VMI Month Scores

Source	df	ms	F Value	p Value*
Test	2	6617.8	42.7	.00
Error (Te)	32	154.9		
Treatment	1	598.1	1.8	.20
Error (Tr)	16	337.3		
Test X Treatment	2	140.7	1.3	.30
Error (Te X Tr)	32	112.0		

* Any F value whose associated p value is less than or equal to .05 is statistically significant at or beyond the level selected for this study.

TABLE XXVIII

Gates-MacGinitie Reading Score Means and Relevant t Values

Gates-MacGinitie Reading Variable	Treatment	Mean	df	t Value (Correlated Samples)	p Value* (One-Tailed Test)
Raw Score	Experimental	49.3	16	2.28	.02
	Control	44.7			
Percentile Rank	Experimental	72.4	16	2.53	.01
	Control	56.0			
Grade Equivalent (Months)	Experimental	30.4	16	2.67	.01
	Control	24.7			

* Any t value whose associated p value is less than or equal to .05 is statistically significant at or beyond the level selected for this study.

Discussion

PPVT and VMI variables. While the F tests of primary relevance for the PPVT and VMI variables are not statistically significant at or beyond the .05 level, the similar nonsignificant trends suggest that experimental subject gains are greater than control subject gains. Regarding the constructs that the PPVT and VMI instruments purport to measure, the EPSFP treatment provides more favorable results than does similar treatment without the EPSFP.

Gates-MacGinitie variables. The analysis of all the Gates-MacGinitie variables resulted in experimental means that are significantly greater than their corresponding control means. Some caution in the interpretation of these results is advised since no pretreatment Gates-MacGinitie testing was possible and since the pretreatment PPVT experimental mean is considerably greater than the pretreatment PPVT control mean (this is not the case for the VMI variable). On the other hand, results of other statistical analyses, including analysis of covariance not presented in this report, are consistent with an interpretation that the EPSFP treatment provides more favorable results than does similar treatment without the EPSFP.

Relationship between results and prior findings. In an analysis associated with the 1975-76 EPSFP data collected*, experimental gains generally exceeded control gains. Results in the 1975-81 analyses all suggest project success. These findings are consistent with the long-range study findings in that all the findings suggest positive project effects.

Conclusion

Based on the analysis of the data collected on subjects in the five participating school districts, the EPSFP is concluded to be successful relevant to a two-year effect. This conclusion is consistent with several previous conclusions. Within a short period of time, conclusions regarding a three year effect will be available.

* Details concerning these results may be found in a publication entitled Early Prevention of School Failure Nationally Validated Project Evaluation Report for 1975-76.

PLS NORMS AND VALIDITY

Overview*

In this section may be found information concerning (a) nature of, (b) norms for and (c) validity of the PLS instrument.

Nature of PLS

The PLS purports to measure readiness for school based on integrated auditory, visual and motor synthesis. Its development was in 1971 motivated by an apparent lack of instruments that measure certain aspects of readiness for school. One of the results of all efforts was an instrument that consists of five relatively independent components that are:

(1) Visual-Vocal Integration
(2) Vocabulary
(3) Auditory Response
(4) Integrative-Auditory Memory
(5) Discriminative Visual-Auditory Memory

Norms for PLS

A norm sample consisted of 4270 students from school districts that adopted the 1975-76 EPSFP and returned sufficient data to the administrative office. Several details concerning the norm sample may be found in another publication*. In Table XXIX may be found PLS norms for levels of chronological age. Two sets of norms are provided. Predicted PLS scores for levels of chronological age were based on simple regression analyses and on PLS means for samples of students of similar chronological ages. Only students between the ages of 52 and 81 months were utilized in computing the predicted values. The values based on means appear to be the most unreliable for the youngest and oldest students since they were based on relatively small sample sizes.

* Details concerning the nature of, norms for (including description of norm sample), and validity of the PLS instrument may be found in a publication entitled Early Prevention of School Failure Nationally Validated Project Evaluation Report for 1975-76.

TABLE XXIX

PLS Norms for Levels of Chronological Age

Chronological Age (months)		Raw Score PLS 1	PLS 2	PLS 3	PLS 4	PLS 5	PLS Sum
52-54	R*	5.2	2.9	2.1	4.0	4.8	19.1
	M*	4.8(18)**	2.8(18)	2.0(18)	3.9(18)	5.4(18)	18.6(18)
55-57	R	5.5	3.1	2.4	4.2	5.2	20.4
	M	5.6(136)	3.1(136)	2.2(136)	4.0(136)	5.5(136)	20.6(136)
58-60	R	5.7	3.3	2.7	4.4	5.6	21.7
	M	5.6(642)	3.2(642)	2.7(642)	4.4(642)	5.2(641)	21.1(642)
61-63	R	5.9	3.5	3.0	4.6	6.0	23.0
	M	6.0(887)	3.5(887)	3.0(887)	4.7(887)	6.3(887)	23.4(887)
64-66	R	6.1	3.6	3.2	4.8	6.4	24.3
	M	6.2(888)	3.7(888)	3.3(888)	4.8(888)	6.4(888)	24.3(887)
67-69	R	6.4	3.8	3.5	4.9	6.8	25.6
	M	6.4(802)	3.8(802)	3.6(802)	5.0(802)	6.9(802)	25.7(802)
70-72	R	6.6	4.0	3.8	5.1	7.2	26.9
	M	6.6(440)	3.9(440)	3.8(440)	5.0(440)	7.1(440)	26.3(440)
73-75	R	6.8	4.2	4.1	5.3	7.6	28.2
	M	6.8(226)	4.1(226)	4.1(226)	5.4(226)	7.7(226)	28.2(226)
76-78	R	7.1	4.4	4.4	5.5	8.0	29.5
	M	7.1(178)	4.3(178)	4.4(178)	5.4(178)	7.8(178)	29.0(178)
79-81	R	7.3	4.6	4.7	5.7	8.4	30.8
	M	7.4(53)	4.7(53)	4.5(53)	6.0(53)	8.3(53)	30.9(53)

* R refers to predicted score based on a regression analysis and M refers to predicted score based on a mean of a sample.

** The values enclosed within parentheses are the sizes of the samples for which the means were computed.

Validity of PLS

During initial years in the use of the PLS some attempts were made to establish its validity. Evidence of content, concurrent, predictive and construct validities were observed and presented. Test-retest reliability was established with a Pearson product-moment correlation of .77.

Further evidence of the validity of the PLS is evident in that student PLS gain is generally observed with student PPVT and VMI gains, and with student participation in the EPSFP*.

However, the yearly reports have often included challenging statements pertaining to validity of relevant measurement. Implied was the need to better establish the validity of the PLS instrument. This reoccurring theme has motivated the initiation of a new study concerning the content, concurrent, predictive and construct validities of the PLS.

* Details concerning these points may be found in the EPSFP yearly evaluation reports and the following sections of this report: Results for 1979-81 Projects; Results for 1975-79 Projects; and Study of Long-Range Effects of Project.

DISCUSSION

Overview

In this section may be found discussion relevant to the (a) success of the project, (b) relationships between selected student gain and other variables, and (c) improvements that have been and will be made in the evaluation of the project.

Success of Project

The results provide several indices of success of the project. These include adoption and funding statistics; student gains in consistent excess of initial goals; evidence of short - and long-range positive effects on student performance; and positive teacher, student, administrator and parent response to the project. District mean month gains per month in the project have been almost always greater than one and often greater than two. The results of a second year of study of the long-range effects of the project and another study suggest that students subjected to the project generally gain more than matched students not subjected to the project. While the collective results do not provide absolute proof of success of the project, they do strongly suggest success of the project and indicate that student performance objectives have been more than satisfied.

Relationships Between Selected Student Gain and Other Variables

While several difficulties in the analysis of relationships between selected student gain and other variables have been consistently acknowledged and caution in the interpretation of the results has been suggested*, several apparent and often strong indications have been observed. Most notable are the positive relationships between student gains and each of the following:

(1) Number of students in district.

* Details concerning the weaknesses in the analysis of relationships between selected student gain and other variables may be found in the yearly EPSFP evaluation reports, the Relationship between Amount Specialist/Teacher Help and Student Gain for Selected Funding Types subsection of the Results for 1979-81 Projects section of this report, and the Relationship between Amount Teacher/Specialist Help and Student Gain for Selected Funding Types for 1975-79 Projects subsection of Results for 1975-79 Projects section of this report.

(2) Percent low-income families in district.
(3) Percent minorities in district.
(4) District satisfaction with training.
(5) Overall teacher reaction.
(6) Overall district reaction.
(7) Amount regular classroom teacher help.

Also notable is the negative relationship between student gain and age. Lastly notable are the following:

(1) Greater gain for high-risk students than for moderate-risk students.
(2) Greater gains for districts in which learning centers were utilized than for districts in which learning centers were not utilized.
(3) Greater gain for districts in which parent volunteers were utilized than for districts in which parent volunteers were not utilized.
(4) Greater gain for districts that presented EPSFP-related programs than for districts that did not present EPSFP-related programs.

Indepth analysis of each of these and other relationships has not been attempted. Many of the high and low relationships observed are artifacts of measurement and methods of analysis, and no doubt do not truly reflect the quantity of relationship. The analyses have been somewhat limited because the intent of the project has not been to provide results from a well-controlled experiment although some well-controlled experiments have been and will continue to be utilized in conjunction with the project.

Any high and statistically significant relationship should not be interpreted as a causative relationship without considerable additional reflection. For example, does overall teacher reaction have a causative effect on student gain or does student gain have a causative effect on overall teacher reaction? Or, are each an effect of another variable that has a similar effect on both? Future study of data collected from 1975 will in part relate to analysis of causation.

Improvements in Evaluation of Project

Recommendations for future analyses have been consistently provided in yearly evaluation reports. These recommendations, of course, relate to im-

provements in the evaluation of the project. Generally they have related to difficulties in the analyses due to the nonexperimental nature of the project, the need for improved measurement, the need for study of adequate samples of control students, and the need for evaluating the long-range effects of the project. These awarenesses in part motivated the initiation of the long-range study reported in a previous section of this report and the plans for further validation of the PLS instrument. Greater concern for measurement, control, causation, and new variables will be demonstrated in future analyses. Continued efforts in establishing the validity of the PLS and in the study of the long-range effects of the project will also follow.

CONCLUSIONS

Based on results and limitations presented in this report the following conclusions are provided:

(1) Number of adopters, funding, student gains, selected school district reactions to the project, and the results from the long-range study all suggest success of the project.

(2) Several variables appear to be related to amount student gain.

(3) Additional information concerning long-range effects of the project will be known in less than one year.

(4) The nature of the project and difficulties associated with the evaluation of it contribute to the difficulty in providing irrefutable statements concerning success of the project and relationships among variables.

ADOPTER CONTACT PERSON: _____

SCHOOL DISTRICT NAME: _____

SCHOOL BUILDING NAME: _____

ADDRESS: _____

TELEPHONE NUMBER: _____

EARLY PREVENTION OF SCHOOL FAILURE
ADOPTER SCHOOL
Pre- Post Test Information

Return to:
K-W Curriculum Service Office
114 North Second Street
Peotone, Illinois 60468

PRE-TEST DATE: _____
(all testing must be within a one wk. interv

POST TEST DATE: _____
(all testing must be within a one wk. interv

School District Congressional Dist. # _____
Buildings Implementing EPSF _____
Classrooms Implementing EPSF _____
Students in EPSF _____

Please enter months scores in months and NOT years and months. For example, 6-5 should be entered 77 months.

This must be completed in order to be analyzed.

Name or Number	Sex 1-M 2-F	C.A. in Mon's at Pre-test Time	PLS Pre-test Raw Scores I	II	III	IV	V	PLS Pre Total Raw Score	PLS Pre Total Mon's Score	PLS Post Test Raw Scores I	II	III	IV	V	PLS Post Total Raw Score	PLS Post Total Mon's Score	PPVT MA Score in Months Pre-test Mon's	Post test Mon's	VMI MA Score in Months Pre-test Mon's	Post test Mon's	Educational Planning (Check one) Mod. Risk	High Risk	Treatment Average Minutes Per Week Child Receives Special Services (Please enter all relevant data) LD Tch. Min's Per Week	Title 1 Tch. Min's Per Week	Sp'ch Tch. Min's Per Week	Reg. Cl'sm Tch. or Aide Indiv. Instr. Min's Per Week	Social Worker Min's Per Week

APPENDIX

Form E

EARLY PREVENTION OF SCHOOL FAILURE

BASE DATA FOR EVALUATION OF ADOPTER DISTRICTS

Please respond to the request for data below based on the information found on your state reports and/or project proposals. The information will be used to determine if the size of school district, dollar cost, type of student population, class size and amount of special services available appears to relate to the effectiveness of the Early Prevention of School Failure Program in your school district.

Name of School District:_____ Public:____ Private:____(check one)

District Address:_____ Telephone:_____

Contact Person:_____ Title:_____

Grade Range of District:_____

Current Total Number of Students in District:_____

Current Assessed Real Estate Valuation per Student in School District:_____

Educational Cost Per Student in Your District Last Year:_____

Comments:_____

Screening Information

Check Current Screening Groups:

Preschool_____ (ages 3-4) Kindergarten_____ (ages 5-6) First_____ (ages 6-7) Other_____ (ages_____)

Screening Dates: Month_____ Days_____

Total Number of Children Screened in School District for this School Year:_____

No. of White _____
No. of Negro _____
No. of Amer. Indian _____
No. of Other (specify) _____

No. of Puerto Rican _____
No. of Oriental _____
No. of Mex. Amer. _____

Number of students from low income families in school district eligible for Title I ESEA assistance:_____

Total dollar cost per student locally budgeted for Early Prevention of School Failure Program this year above regular program cost:_____

Total dollars received from grants, special projects, state facilitator's office to implement Early Prevention of School Failure Project this year: $_____

Additional funds received from:_____

Components:
Training of Staff $_____ Materials $_____ Other (specify)_____

Please return form to: Mrs. Luceille Werner, Project Director
K-W Curriculum Service Office
114 North Second Street
Peotone, Illinois 60468

FORM D FOLLOW-UP MONITORING REPORT FOR
EARLY PREVENTION OF SCHOOL FAILURE ADOPTER DISTRICTS

Consultant Reporting_____ School_____

Name of District Program_____ Date_____

School Coordinator_____ School & Address_____

_____

_____

1. SCREENING DATA

   a. Personnel on Screening Team who were trained:

   _____ _____

   _____ _____

   _____ _____

   _____ _____

   _____ _____

   b. Dates of Pre-Screening_____
   c. No. of Schools Screened_____
   d. No. of Students Screened_____
   e. Was a parent orientation provided?_____
   f. Were parents informed of the screening results?_____
   g. Name special services available to teachers
      (in-service workshops, on-going consultations, etc.)

      _____

      _____

   h. Was an educational planning workshop held utilizing screening results, observations, parent data, etc?_____
   i. Dates of post-screening results evaluated to determine the effectiveness of the program activities?_____

2. CLASSROOM PROGRAMS

   a. Were Learning Disability Classes provided?_____
   b. What other services were provided to high risk students?
      (learning disability consultants, speech therapy, social work services, etc. -20-30 mimutes a day)_____

      _____

      _____

   c. Was the skill sheet used for individual planning?_____
   d. Were the Curriculum Guides used for the selection of activities for educational planning?_____

e. Were learning centers provided and equipped with the suggested materials?_____

f. Were individual and small group activities (20-30 mimutes daily) planned for the regular classroom?_____

g. Were inservice programs on follow-up activities scheduled for teachers?_____

h. Were parent volunteers used?_____How many?_____

i. Were workshops for parents held for making teaching tools?_____

j. Were first grade teachers involved in EPSF Program?_____

3. POSSIBLE FOLLOW-UP

a. Will your district consider expanding the program?_____yes_____no
If yes, will you need additional training materials, etc._____

4. DISTRICT ACTIVITIES

a. Has your district presented programs on the Early Prevention Program? (PTA's, workshops, state meetings, etc. Please list type, date, and number of staff participating).

_____

_____

_____

_____

5. FUTURE PLANS OF THE ADOPTOR DISTRICT

a. Will your district be involved in the Early Prevention Program for 1982-83?_____

6. EVALUATION

a. Have the pre and post screening results and parent attitude survey been recorded and available for the projects follow-up supportive services?_____

b. Has the monitoring report been completed for the project?_____

RETURN TO: Mrs. Luceille Werner
114 N. 2nd
Peotone, Illinois 60468

Early Prevention of School Failure Questionnaire

Name and/or Position _____ School _____

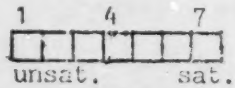
State _____ Date _____

INSTRUCTIONS

Please accurately respond to each 7-point scale. Provide comments as you feel appropriate. Mark with an "X" before the item number the *three* items to which it was most difficult for you to provide a valid response. Respond to items 1 through 4 according to the following scaling:

1 - Totally unsatisfied
2 - Between Totally unsatisfied and Slightly satisfied
3 - Slightly satisfied
4 - Between Slightly satisfied and Considerably satisfied
5 - Considerably satisfied
6 - Between Considerably satisfied and Totally satisfied
7 - Totally satisfied

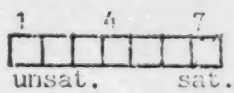
1. Express the degree to which you feel satisfied with how well you were trained to provide the EPSF program.



Comments: _____

_____

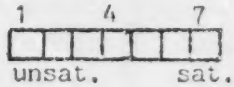
2. Express the degree to which you feel satisfied with parent involvement in the EPSF program.



Comments: _____

_____

3. Express the degree to which you feel satisfied with EPSF materials provided as a form of supportive service.

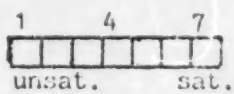


Comments: _____

_____

_____

4. Express the degree to which you feel satisfied with specialists (speech teachers, LD teachers, social workers, Title I teachers, etc.) utilized as a form of supportive service.



Comments: _____

_____

May 1980

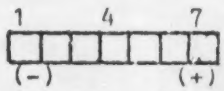
Respond to items 5 to 9 according to the following scaling:

1 - Totally negative

3 - Moderately negative

5 - Moderately positive

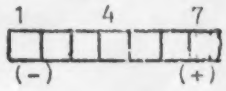
7 - Totally positive

5. Express the overall parent reaction to the EPSF program. 

Comments: _____

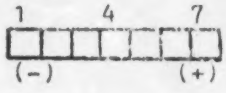
_____

_____

6. Express the overall student reaction to the EPSF program. 

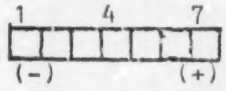
Comments: _____

_____

7. Express the overall administrator reaction to the EPSF program. Comments: _____ 

_____

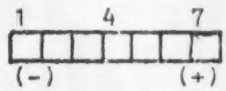
_____

8. Express the overall teacher reaction to the EPSF program. 

Comments: _____

_____

_____

9. Express your overall reaction to the EPSF program. 

Comments: _____

_____

_____

_____

Respond to items 10 to 12 according to the following scaling:

1 - Moderately negative difference
(current lower than old)

3 - Little or no difference

5 - Moderately positive difference
(current higher than old)

7 - Highly positive difference
(current higher than old)

10. Express the degree to which you feel student (subjected to EPSF program) attitude toward learning differs from what recent and former student (*not* subjected to EPSF program) attitude toward learning was. Comments:

1 4 7
Mod. Neg. Diff. Highly Pos. Diff.

11. Express the degree to which you feel student (subjected to the EPSF program) performance differs from what recent and former student (*not* subjected to the EPSF program) performance was. Comments:

1 4 7
Mod. Neg. Diff. Highly Pos. Diff.

12. Express the degree to which you feel the program has changed ~~your~~ district teachers motivation to teach effectively.

Comments:

1 4 7
Mod. Neg. Diff. Highly Pos. Diff.